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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/717,424

11/19/2003

Terumi Sunaga

CU-3446

1094

26530

7590

02/24/2005

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EXAMINER

VANDERPUYE, KENNETH N

ART UNIT

PAPER NUMBER

2661

DATE MAILED: 02/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/717,424	SUNAGA, TERUMI	
	<b>Examiner</b>	<b>Art Unit</b>	
	Kenneth N Vanderpuye	2661	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 4-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 4-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted prior art (Fig. 1-5, 6A-D) in view of Tanaka(5,636,243).

With regards to claims 8-13, the admitted prior art teaches a CDMA mobile communication system, comprising:

A transmitter(see Fig. 1 of specification labeled prior art), comprising:

a pilot channel transmit unit which is configured to transmit a pilot signal in a spread spectrum formation(Fig. 1@30); and traffic channel transmit units which are configured respectively to transmit data signals in respective traffic channels(Fig. 1@31), .... a start timing of the pilot signal is offset from a start timing of a pilot signal transmitted by another transmitter in said CDMA mobile communication system(Fig. 5, offsets).

What the admitted prior art fails to teach, is wherein the pilot channel transmit unit is configured to transmit the pilot signal intermittently. This is taught by Tanaka. Tanaka's invention deals with direct communications between mobile stations in which he discloses a method wherein a single base station transmits an intermittent signal, in a predetermined control channel(TDMA slot once every 100 msec, Fig. 3), to terminals within the service area. These terminals communicate with each other by transmitting control and response signals intermittently to establish synchronization there between (summary of the invention, Fig. 12). In this way less power is expended during the establishment of synchronization. It would have been obvious to one of ordinary skill in the art to incorporate this same concept in the admitted prior art i.e. intermittent transmission of a pilot signal by the CDMA transmitter for the purpose of reducing power consumption. Also the admitted prior art fails to teach and said pilot signal whose start timing is offset has a period shorter than an interval has a period shorter than an interval at which said pilot signal whose start timing is offset is transmitted. Although Tanaka does not expressly teach this feature, it is inherently imperative that the period of the pilot signal be shorter than an interval in which the pilot signal is intermittently transmitted,

else intermittency cannot be achieved. It would have been obvious to combine Tanaka with the admitted prior art for the same reasons above.

The admitted prior art also teaches a receiver(Fig. 2), comprising:

a pilot channel receive unit that receives pilot signals transmitted by transmitters in said CDMA mobile communications system(Fig. 2@34), wherein a start timing of the pilot signals transmitted by different transmitters are offset from each other(Fig. 5), and each pilot signal has a period shorter than an interval at which each pilot signal is transmitted. Although Tanaka does not expressly teach this feature, it is inherently imperative that the period of the pilot signal be shorter than an interval in which the pilot signal is intermittently transmitted, else intermittency cannot be achieved. It would have been obvious to combine Tanaka with the admitted prior art for the same reasons above. (Note that claims 9, 10 , 12-13 are broader versions of claims 8, 11)

Claims 4-5 and 6-7 are rejected for the same reasons as claims 8, 11-13 because they represent the individual transmitting and receiving components as claimed in claims 8, 11-13. Hence they are broader versions of these claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth N Vanderpuye whose telephone number is 571-272-3078. The examiner can normally be reached on M-F(7:30-5:00) Second Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on 571-272-3126. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



KENNETH VANDERPUYE  
PRIMARY EXAMINER

KNV  
2/23/05

Application/Control Number: 10/717,424  
Art Unit: 2661

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